

to that of the palace. But a real architect will never exhaust the ornament obtainable from the plain cottage ones, of two or three colours (and every neighbourhood affords at least two) by arranging them in stars, hexagons, lozenges, broad bands, zigzags, and borders. No two ceilings need be alike.

There are two variations in their form, however, that I should use in particular circumstances.

1st. For narrow passages, closets, stair-landings, and other ceilings having rectangular well-holes, or much bounding-line forming either right angles or angles of  $135^\circ$ , I should use a web of square hoop-ties, united by couplings of only two bolts; from each of which couplings would spring the feet of four tiles; and the heads of four would meet over the centre of each mesh.

The faces of these must be rhombi whose diagonals are as 1 to  $\sqrt{2}$ , or the angles  $70\frac{1}{2}^\circ$  and  $109\frac{1}{2}^\circ$ , the bevels regulated as before by the four short edges being inclined  $45^\circ$  to the faces, and the truncation planes each removing half one of these edges. (Mind, the position of these rhombi is to be contrary to that of the former ones, the short diagonal being horizontal.) The construction is altogether inferior to that first described, and will not admit the expansion-compensators; but it will fit rectangular breaks without cutting or half-tiles, and octagonal ones by the two half-tiles only.

2ndly. In palatial rooms and churches (which may possibly require door-ceiling under their galleries) I should use the common triangular net, but a trapezium tile, of which six would spring from each coupling-link, and the heads of three meet over the centre of each mesh. To give them the common inclination of  $45^\circ$ , the upper angle of the trapezium must be  $101\frac{1}{2}^\circ$ , the lower (truncated)  $43^\circ 40'$ , and the side ones  $107^\circ 25'$ . The constant rule that the short vertical edges lean  $45^\circ$  on the faces, will determine the bevel of the edges, viz. the two upper  $52\frac{1}{2}^\circ$  as in the first-described tile, and the two lower  $68^\circ 10'$ . Made with the due accuracy (attainable only in good material) this construction will be far more beautiful than the others, the inverted pyramidules being six-sided. These may further be made lily-shaped by giving the tiles concave faces. Lastly, slabs of stone or marble may replace them in large works: and perhaps in freestone districts, it may do so always with economy.

E. L. GARBETT.

#### THE EDUCATION OF THE ARTIST AND THE PUBLIC.

AT Marlborough-house, on the 27th ult. Mr. Redgrave, R.A. the Art Superintendent, delivered a discourse on the methods adopted by the Department of Practical Art to give instruction in art to all classes of the community. He divided his subject into three general heads:—

1st. The method adopted to give instruction to all in drawing, &c. as an improvement of the perceptive powers, and the appreciative taste; with the collateral advantage of imparting at the same time a language of explanation between employer and workman.

2nd. The more peculiar instruction which it is their office to impart in ornamental decoration, both as to power of execution, knowledge of styles, and proper application of ornament to different fabrics and manufactures; and this equally for the education of the art-workman, the training of the future designer, and the improvement of the public at large.

And last, the methods adopted in those classes which the department has provided for instructing the art-workman and the designer in their special branches of industry. In which classes, not only the principles which regulate the just application of design to the special fabric or manufacture are taught; but all those processes, whether of the hand, the machine, or the laboratory, which govern its production, are explained to the student by professors qualified for such specialities.

It would appear that a very extended course of instruction has been provided.

We shall confine ourselves to the superintendent's remarks on the education of the

public, whereby to enable them rightly to appreciate what is just in taste and excellent in Decorative Art, and these we give in full.

Though last to be spoken of (he proceeded to say), this is certainly not the least of our duties, since, unless effected, it is to be feared that all other efforts will be useless, and any improvement in design a thing beyond our hope. Until men turn their attention to the subject, they are little aware how entirely empirical most of their judgments in matters of taste are, and consequently, as to what is correct and just in Decorative Design also. Men are inclined to believe that judgment on objects of taste does not depend on any acknowledged principles nor can be defined by any rules, but is an innate feeling or perception; and the trite maxim that "taste is not to be disputed"—which is as much as to say that it is amenable to no laws—is still the measure of public opinion in the matter. It is true that we allow that there is a City taste and a West-end taste, a Provincial taste and a London taste; and although these are each known to have their distinctive differences and characteristics, they are considered to depend on the sentiment of this or that public, and are believed to be under no rules nor regulated by any laws. But is it really so? Is true judgment in matters of taste neither to be imparted by any teaching nor improved by comparison or observation? We venture to think not, and shall endeavour to give causes for choice and the reasons for preference as the principles which are to regulate and guide us; not as dogmas, or as infallible, but open to all objectors who diligently seek after what is true. The fact is, that the ignorance of the public in such matters is most melancholy, their want of guidance like that of a child, and deeply have they paid and are still paying for that ignorance. This causes men to rely on precedent and the authority of past times, or on fashion—instead of striving for proper information on which to found their judgment; and then, thinking and judging for themselves, they trust to what has been done before as right, and do not stop to consider what should be done now,—what is suitable to present wants. Let me give you two or three illustrations of this, turning first to Architecture, which must be considered as the parent of Ornamental Art. The rich man who is about to build a mansion in these days, does not sit down to consider what is useful and what he really wants—how many rooms, what aspect for health, what arrangements for comfort, what order of distribution of the offices for convenience—but referring to the past, or to some prevailing fashion, and considering decoration before utility, he instructs his architect what style of architecture shall be adopted: his house must be castellated, Gothic, Grecian, or Italian: it must have a cloister, a portico, or a colonnade, whether it is to be a place he can live in when built or not. Thus instructed, and not allowed to exercise his own judgment, the architect also reverts to precedent and authority, and the estate is cumbered, it may be, with a load of stones called a castle, with walls whose thickness increases the space in his client's pockets at the expense of space in his rooms, duly ornamented, no doubt, with corbels, battlements, and embrasures, things perfectly useless in the present age. The whole when completed is an unsatisfactory absurdity, and the employer pays the penalty, not only in money, but in the inconvenience of dwelling all his days in a dark, gloomy, unsightly, and inconvenient abode. It may be, however, that the builder of the mansion is emancipated from the rigours of mediævalism, and desires a palace or a hall in the Grecian style. It is furnished with a portico according to the strictest Greek proportions, but to allow of this magnificent portico, the lower rooms are so lofty that their size dwindles into insignificance, the two wings are cut apart by a splendid entrance-hall and staircase that leads to bed chambers lighted by skylights, for windows in the front would derange the architectural disposition; thus, the possessor, in a lovely country, open to the sweet breezes from downs and commons, with a far-away sea, and a fair prospect around, pays the life-

long cost of being unable to look out of his windows on the lovely landscape, that the outside of his residence may be decorated with a costly piece of inappropriate decoration. Even when men are about to build a church for the worship of God,—when, at least, it might be hoped that the best means of accommodating the worshippers, and the best arrangements for their joint worship, would have the first consideration,—it is not so: the war is still between styles of architecture; and if churches combined of Grecian temples and Gothic spires, edifices unsuited to our climate, our feelings, or our wants, have at last passed out of date, gone out of fashion, it is to be feared, rather than being rejected on sound principles of taste, these have only made way for the re-introduction of a style wherein symbolism is thought of more importance than convenience, the form of the structure more than its fitness for the worship of God or for hearing therein the preached word of the Gospel. These forms may be suited to the ceremonial of that worship which we have laid aside, because it overlaid the truth with, as we believe, useless ceremonies, but they are quite unsuited to our simpler worship, our larger concourse, or our desire to hear the words of the preacher.

Now all these evils arise from the want of an educated taste and judgment, which being wanted, men cannot or dare not think for themselves, but are in bondage to fashion, to authority, or to the traditions of antiquity. They neglect, or have never had opportunity to learn even these simple rules, which would guide their taste and direct their judgment; namely, that utility should have our first consideration; that constructive propriety should precede ornamentation; and that each age has its own characteristic wants, which are unsuited to the wants of its successor;—rules that, although simple, would root out a large amount of false taste in all things, as well as in architecture; and might be the means of implanting an equal amount of correct judgment and good taste in their stead. But let us turn from architecture to see whether good taste in other matters may not be assisted and regulated by laws and principles; and since the leading characteristic of architecture is form, let us consider the question in respect to colour.

Colour has its laws of harmonious arrangement and disposition, and requires to be present in definite quantities in any distribution to satisfy and please the eye. Now, although it would not be true to say that this subject has had no consideration among artists or designers, since no arrangement of colour in any composition, either pictorial or ornamental, can be made without a consideration of some of these conditions, it would not be too much to say, that the arrangement of colour has been far too often considered an affair of the eye only, both by them and by the public; and that he who is born with a fine eye for colour—as of course every one thinks himself to be—has no need of rules to guide him. Thus too many have been accustomed to proceed empirically, and to laugh at laws they are not at the pains to understand. There is no disputing the fact, that there are varieties of organization in the human race; and it is well known that there are persons whose vision is perfect as far as the perception of form goes, with a completely disorganized sense of colour; so far, indeed, as to be able to read the smallest print and clearly to distinguish objects at great distances, yet to be unable to distinguish between red and green; and that from this state to the perfect perception of tints, hues, and their various minute gradations and relations, there is every amount of perceptive discrimination. Now, as all classes have more or less to do with colour, either in the choice of their furniture, their dresses, or the decoration of their houses, apart from any necessity which may belong to their occupation as workmen, manufacturers, designers, or tradesmen, it must at once be evident that a knowledge of those natural laws which regulate the harmonies of colours and their just distribution, while it is valuable to all, must be an absolute necessity to those whose business is connected with the choice or arrangement of